

## **Confidential Report**

Our Ref: 60/01864/A



Notified Body for PPE Directive, Construction Products Regulation & Marine Equipment Directive I.D. No. 0338 & 0339



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Date: 28 November 2017

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Client: Jiujiang Fire Fighting Equipment Co., Ltd

No 1, Bridge Road

Yujiahe

Lushan District Jiujiang City Jiangxi Province

China

Job Title: Testing of one 3-layer anti-wicking assembly

Client's Order No:

Date of Receipt: 27<sup>th</sup> September 2017 Date of Test Start: 19<sup>th</sup> October 2017

Description of Sample(s): One 3-layer assembly comprising:

Outer fabric: 93% Nomex / 5% Kevlar / 2% P140, (205  $\pm$  10.25) g/m² ripstop Moisture barrier: Aramid non woven + PTFE, (108  $\pm$  5.4) g/m² (membrane to

outer)

Anti-wicking fabric: R-45, (450  $\pm$  5) g/m<sup>2</sup>

Work Requested: We were asked to make the following test:

EN 469: 2005 (incorporating amendment A1: 2006)

(with 5 wash/dry pretreatment at 40°C)

This is a summary report detailing the results as required by the EN 469: 2005 performance standard. All test methods are UKAS accredited.







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## Jiujiang Fire Fighting Equipment Co., Ltd

Sample: Outer fabric: 93% Nomex / 5% Kevlar / 2% P140, (205  $\pm$  10.25) g/m² ripstop

Moisture barrier: Aramid non woven + PTFE,  $(108 \pm 5.4)$  g/m<sup>2</sup> (membrane to

outer)

Anti-wicking fabric: R-45, (450 ± 5) g/m<sup>2</sup>

Performance Standard: EN 469: 2005 (incorporating amendment A1: 2006)

(a) Clause 6.1 Flame spread

(b) Clause 6.2 Heat transfer – Flame

(c) Clause 6.3 Heat transfer – Radiation

(d) Clause 6.11 Resistance to water penetration (on moisture barrier fabric

and seam)

Cleansing Pretreatment: Five wash/dry cycles according to EN ISO 6330: 2012 Procedure 4G (40°C) with

tumble drying (Procedure F) (max. 60°C outlet temperature).

Summary of Results: See page 3.

The performance standard (EN 469: 2005) states that "The uncertainty associated with most of the test methods specified in this European Standard (EN 469: 2005) cannot be determined until laboratory trials have been completed and the test methods have been amended appropriately. In this transitional period the results obtained from all tests specified in EN 469: 2005 shall be interpreted without taking uncertainty into account".

Reported by: A Didycz, Senior Laboratory Technician

Countersigned by: C Dean, Laboratory Director







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## Jiujiang Fire Fighting Equipment Co., Ltd

Sample: Outer fabric: 93% Nomex / 5% Kevlar / 2% P140, (205  $\pm$  10.25) g/m² ripstop

Moisture barrier: Aramid non woven + PTFE, (108  $\pm$  5.4) g/m<sup>2</sup> (membrane to

outer)

Anti-wicking fabric: R-45,  $(450 \pm 5)$  g/m<sup>2</sup>

## Summary of Results:

PROPERTY	TEST METHOD	EN 469 REQUIREMENTS	RESULTS OBTAINED	PASS/FAIL OR LEVEL
6.1 Flame spread (test flame to outer fabric)	EN ISO 15025: 2002 Procedure A	EN 533 Index 3 No flaming to edge No hole formation No flaming or molten debris Mean afterflame ≤ 2s Afterglow not to spread	EN 533 Index 3 No flaming to edge No hole formation No flaming or molten debris No afterflame No afterglow	PASS
6.1 Flame spread (test flame to innermost lining)	EN ISO 15025: 2002 Procedure A	EN 533 Index 3 No flaming to edge No hole formation No flaming or molten debris Mean afterflame ≤ 2s Afterglow not to spread	EN 533 Index 3 No flaming to edge No hole formation No flaming or molten debris No afterflame No afterglow	PASS
6.2 Heat transfer – Flame	ISO 9151: 2016	$\begin{array}{c ccc} & \underline{Level\ 1} & \underline{Level\ 2} \\ HTI_{24} & \geq 9.0 & \geq 13.0 \\ HTI_{24-12} & \geq 3.0 & \geq 4.0 \\ \text{(based on lowest result)} \end{array}$	HTI <sub>24</sub> = 16.1 HTI <sub>24-12</sub> = 4.4	LEVEL 2
6.3 Heat transfer – Radiation	EN ISO 6942: 2002 Method B at 40kW/m <sup>2</sup>	$\begin{array}{c cccc} & \underline{Level\ 1} & \underline{Level\ 2} \\ \text{RHTI}_{24} & \geq 10.0 & \geq 18.0 \\ \text{RHTI}_{24-12} & \geq 3.0 & \geq 4.0 \\ \text{(based on lowest result)} \end{array}$	RHTI <sub>24</sub> = 19.3 RHTI <sub>24-12</sub> = 6.1	LEVEL 2
6.11 Resistance to Water penetration (anti-wicking fabric)	EN 20811: 1992 (1996)	Level 1 < 20kPa Level 2 ≥ 20kPa	The anti-wicking assembly incorporates a moisture barrier component which itself achieved Level 2 performance (see report 60/01864/B)	



